



# DMLife

## Diabetes Management Lifestyle and Diet Programme

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# Type 2 Diabetes (T2DM)

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- Raised blood sugar levels
- **Multifactorial risk factors:**
  - Age, ethnicity, genetic predisposition
  - Lifestyle-related: obesity, smoking, alcohol, physical inactivity
  - Other conditions e.g. hypertension, diabetes during pregnancy, heart disease, stroke, mental health conditions
  - Social deprivation
- There is a potential for remission with **lifestyle changes.**



# The scope of the problem

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**4.3 million** in the UK registered with diabetes, but it's estimated up to 5 million or 1 in 14 people could be living with the condition according to Diabetes UK.



90% of these have T2DM



Additional **2.4 million** people in the UK are pre-diabetic and at risk of developing the disease in the next 5 years.



The rate of diagnosis is growing alarmingly fast; T2DM diagnosis **has doubled in the last 15 years.**

# The scope of the problem

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**Complications** have massive implications on individuals, health systems and wider socioeconomic factors.



**1 in 6** beds are occupied by someone with T2DM.

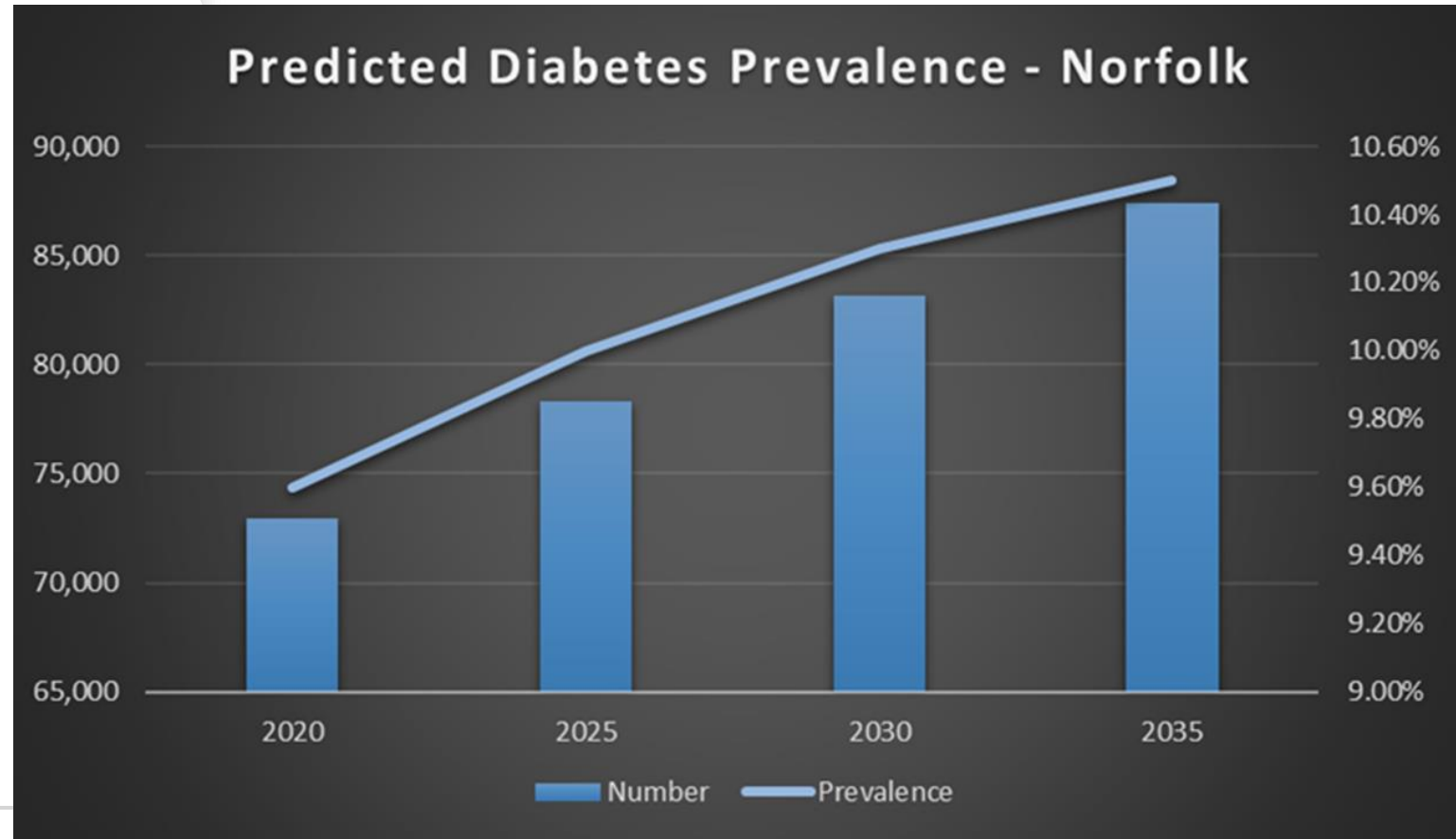


Every week diabetes leads to:  
>**190** amputations  
**770** strokes  
**590** heart attacks  
>**2300** cases of heart failure



**10%** of the NHS budget is spent on T2DM, of which **80%** of that budget is spent treating **complications** that were preventable.

# The local picture



**16,753 patients with Type 2 Diabetes in GYW**

**Potential increase of 14,504 by 2035**

# DMLife Programme objective

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**To deliver a highly personalised diabetes lifestyle programme by delivering 1:2:1 PT sessions and nutritional advice over an 11-week period**

**This was aimed at 'hard-to-reach patients' i.e. patients with a long-term diagnosis of T2DM who were under the Specialist Diabetes Service with a background of difficult diabetic control, poor activity levels and suboptimal nutritional behaviours.**

# Methods

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## Patient selection:

- Initially identified by the DSN service
- Then opened to self-referral for those under the DSN service who weren't already invited to participate

## Induction:

- Health screening and evaluation
- Review of likely obstacles that would prevent behaviour change
- Metrics included weight, height, BMI, waist circumference, average pre-prandial blood glucose

## Short Form 36 (SF-36) Questionnaire:

- An extensively validated and used tool for measuring quality of life in healthcare

# Methods

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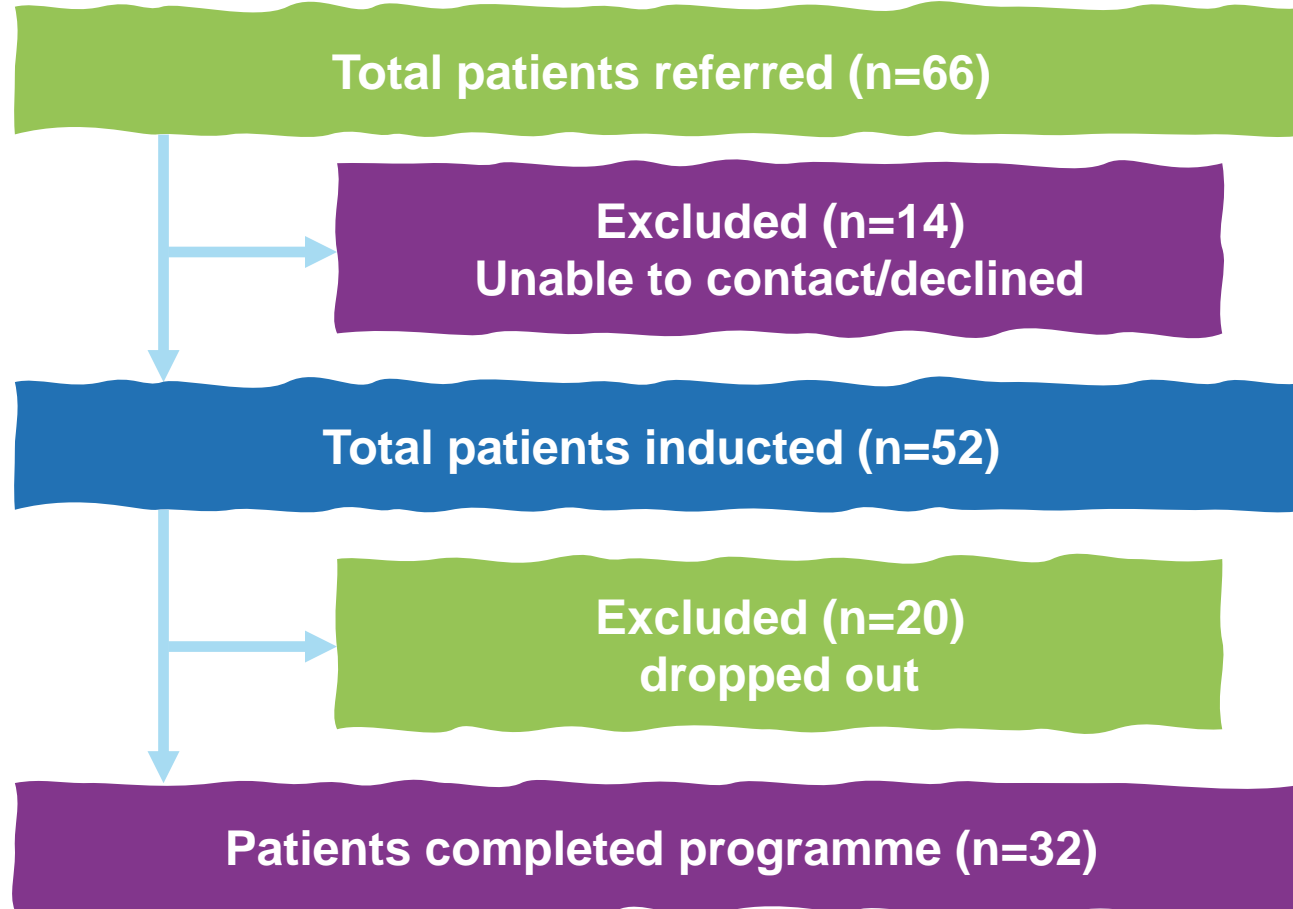
- 1 Induction session
- 10 weekly **activity sessions** and 4 **nutritional advice** sessions
- 1 evaluation exit session.
  
- 1:2:1 training sessions and nutritional advice delivered by an **experienced PT** who has expertise in working with NHS patient populations. Methods and location varied depending on needs.
  
- The '**8-Week Blood Sugar Diet**' books by Dr Michael Mosley were given to each participant and formed the basis of the nutritional guidance throughout the programme, namely the "Mediterranean Diet".





# Results

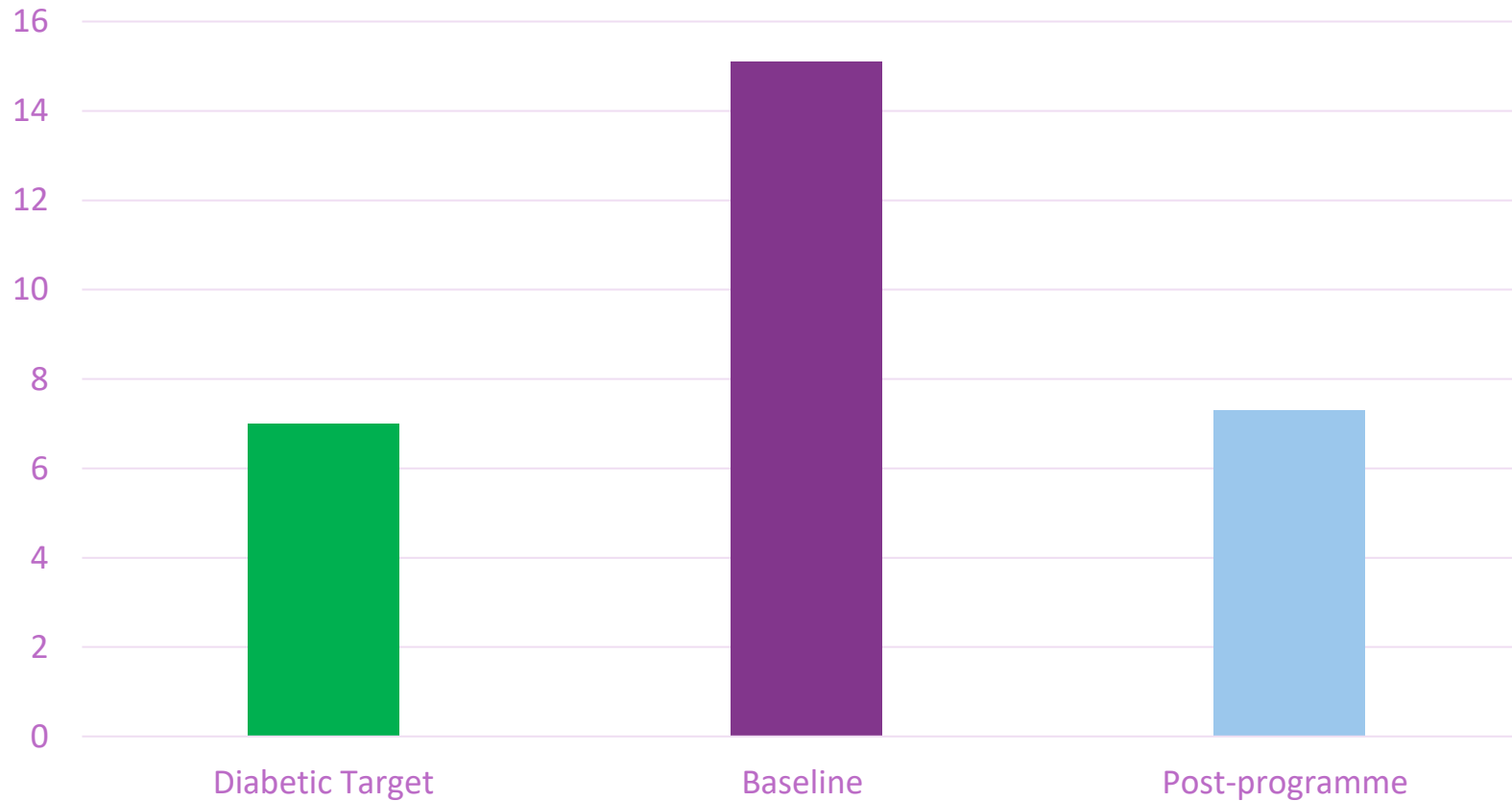
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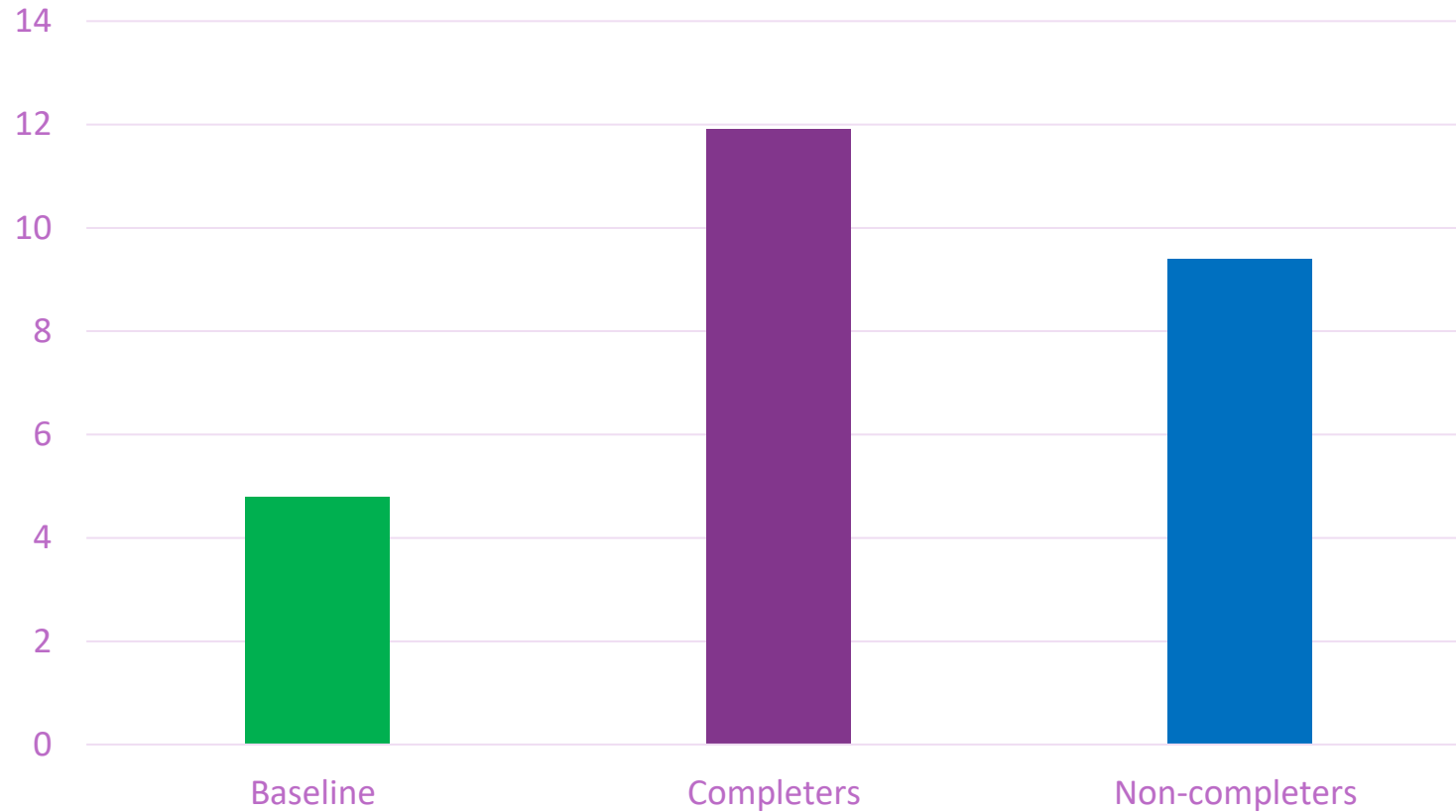
- **21%** attrition from referral to induction (est. 16%)
- Self-referrals saw the highest rate of programme completers (**56%**)

# Results - Pre-prandial average BM readings (target 4-7mmol/L)

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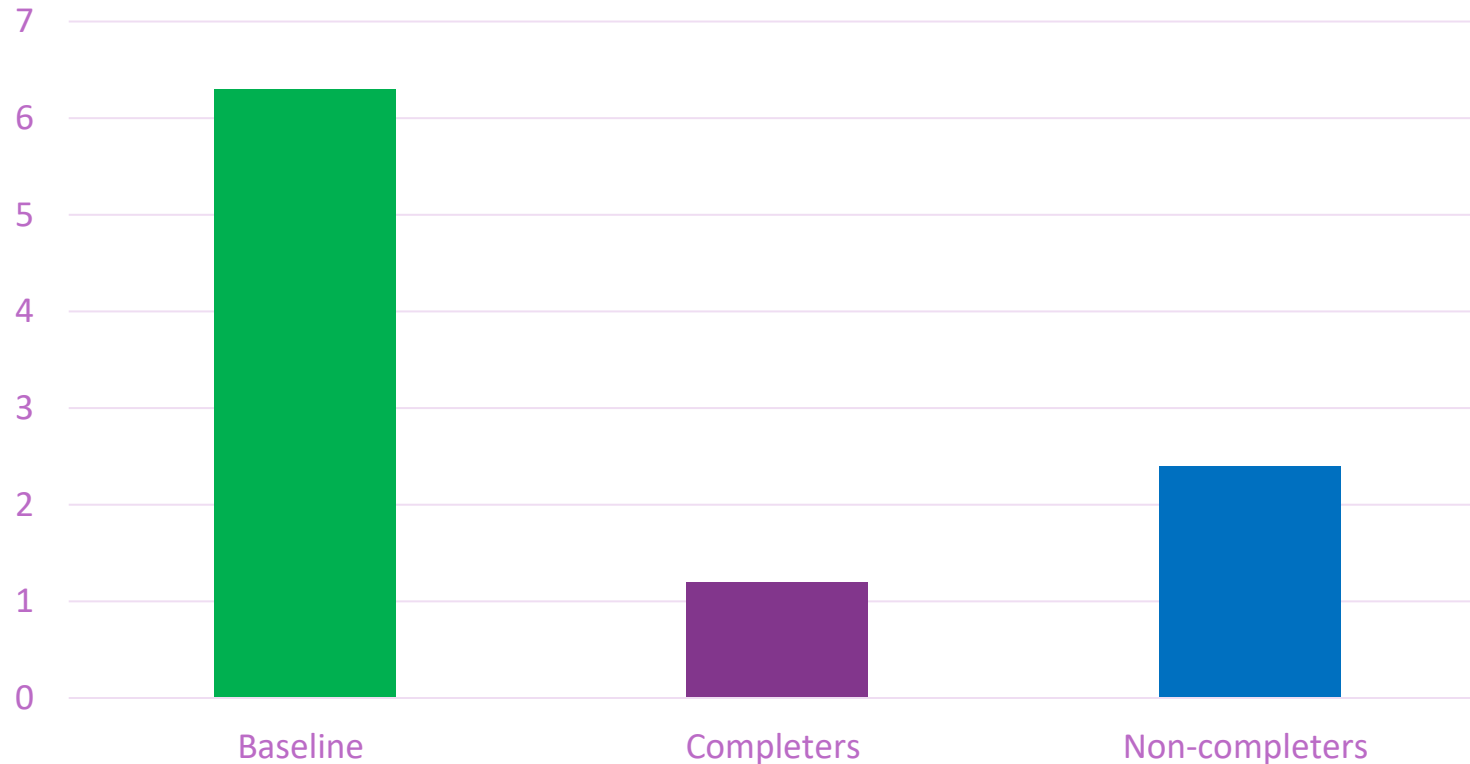


# Results - Mediterranean diet compliance (target >10)



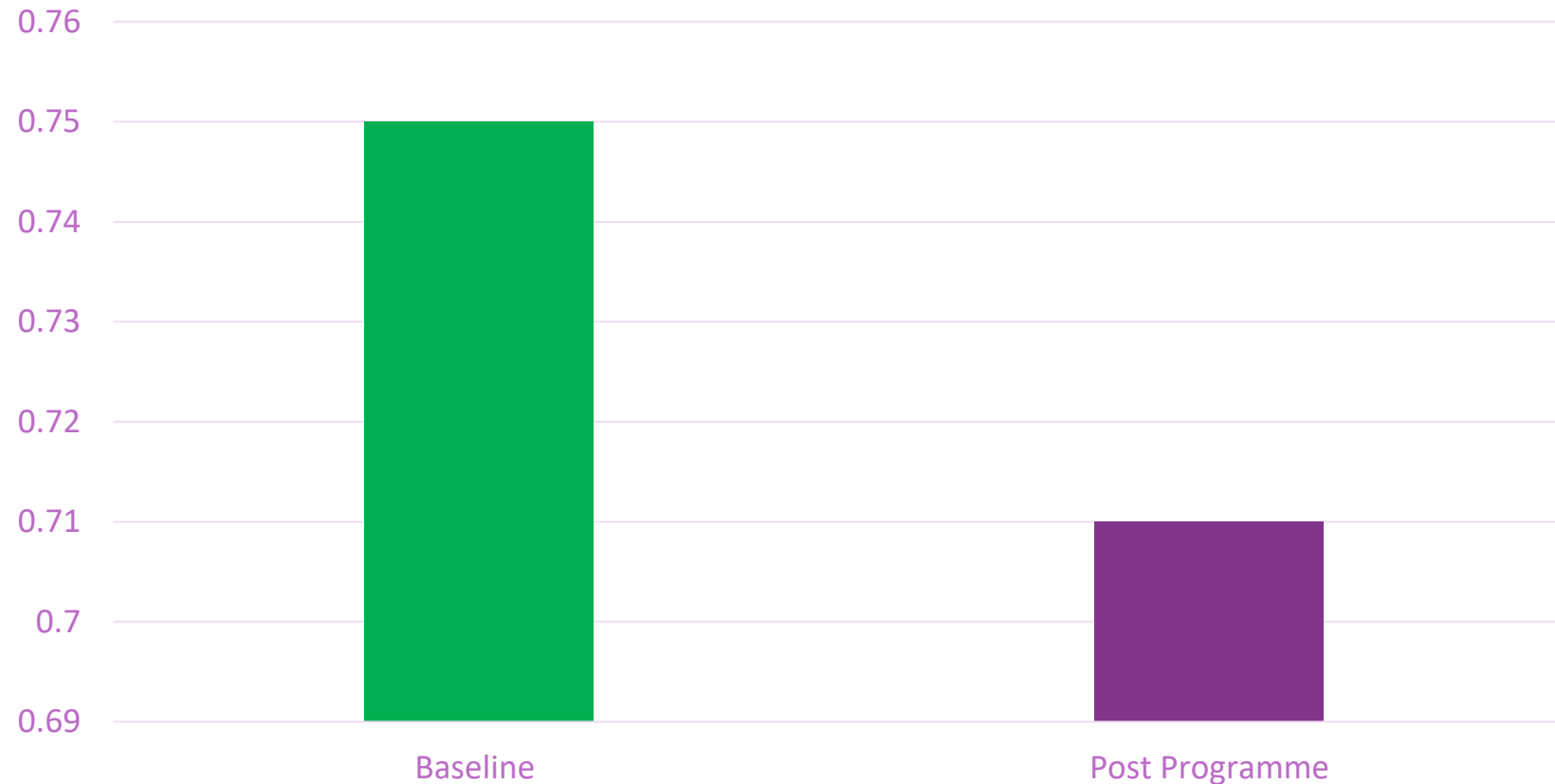
# Results - Carbohydrate addiction (target $\leq 3$ )

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# Results - Waist to height ratio (target 0.5)

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# Results - SF-36 results

Domain	UK average	Pre	Post	Improvement
Physical activity limitations	83	41	74	81%
Usual daily activity limitations	83	46	77	67%
Bodily pain	71	32	70	119%
General health perception	71	38	52	37%
Vitality/energy	58	32	60	88%
Social limitations	84	67	87	30%
Emotional limitations	87	79	88	11%
Mental health	75	65	79	22%

# Patient feedback

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	Average Score 1-10
How much the programme helped the patient understand and control their diabetes	9.0
How well the programme explained how to improve diabetic symptoms through diet and nutrition	9.2
How easy it was to adopt the dietary changes	8.4
How much the physical activity benefitted their health/diabetic symptoms	9.4
How personalised the patient felt the programme was to their individual needs	9.4
How much the programme helped the patient cope mentally with their diabetes	9.3

# Patient feedback - testimonials

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*"I have more energy and have been able to start a new job."*

*"I hope that someone takes this programme on – whatever the cost of this programme, it outweighs the cost of my illness to the NHS."*

*"I would recommend anyone to do it, it gives a completely different insight into helping yourself."*

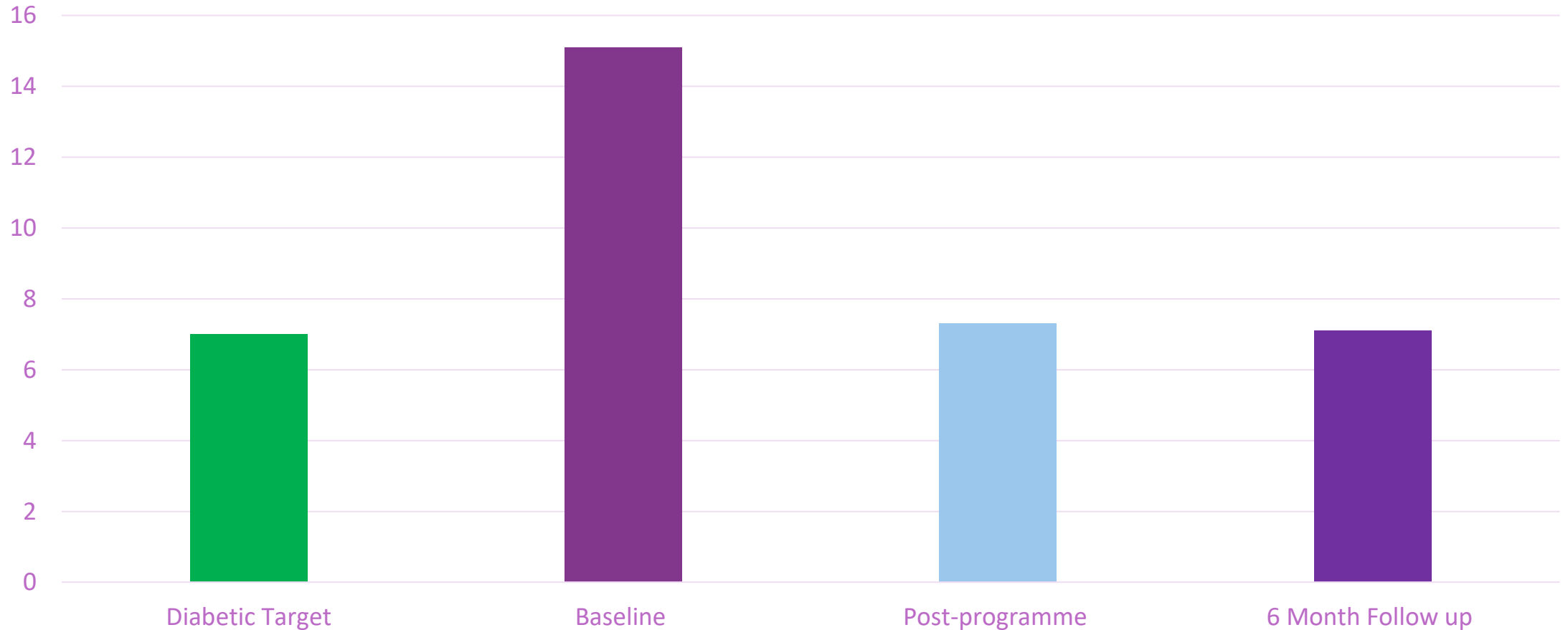
*"I am really pleased as I can now control my blood sugar levels. I'm amazed I have brought my daily insulin down."*

*"It has given me a positive attitude, I have not looked back."*

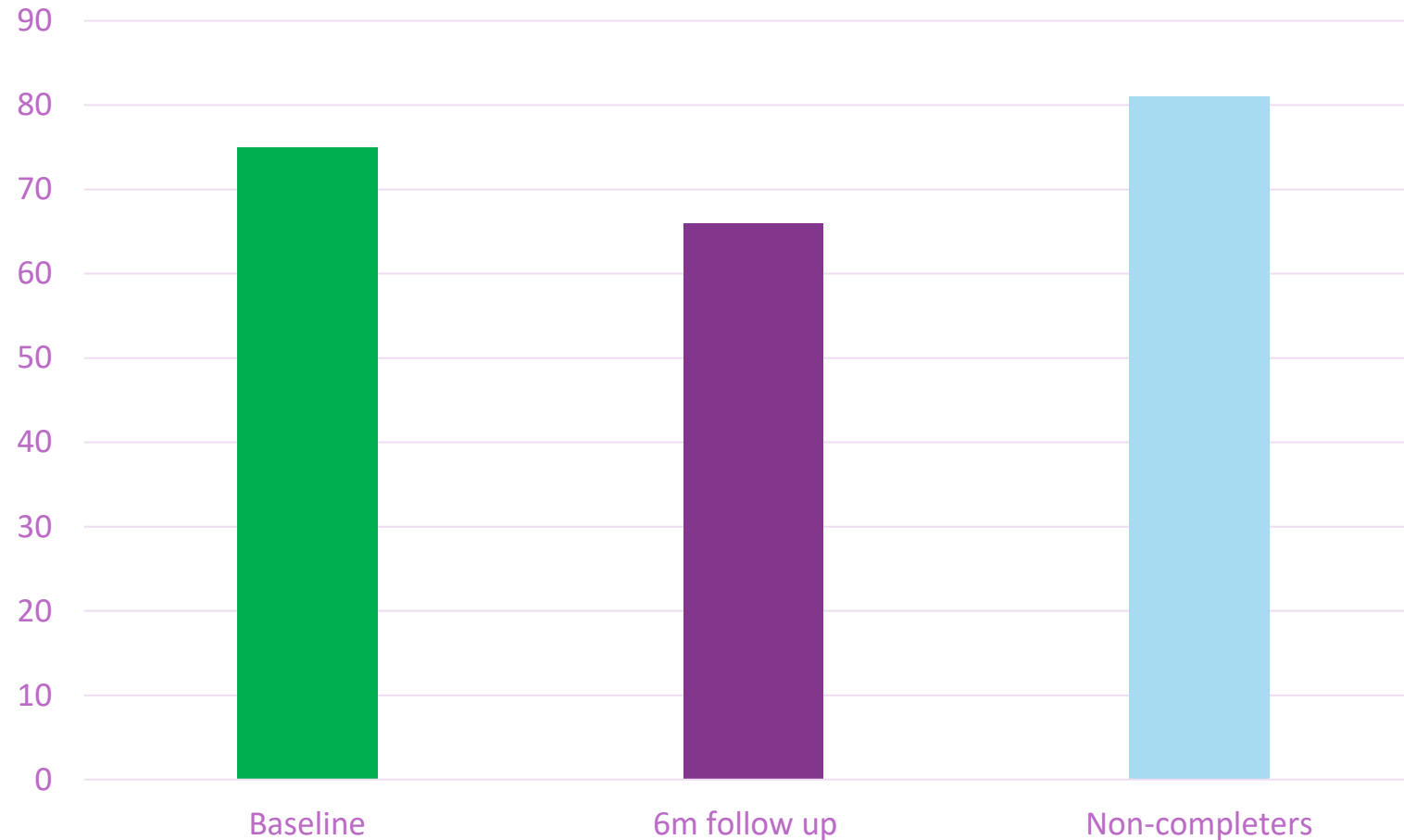
*"I feel every diabetic patient should be given this programme... it has helped me more than I expected it would".*



# 6m Results- Pre-prandial BM readings (Target 4-7mmol/L)



# 6m Results - HbA1c (Target 58mmol/mol)



# 6m Results- Carb Addiction Scores (Target <3)



# What's next for DMLife?

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- Phase 1

- Extend the programme to 100 working aged people with T2DM in the GY+W area in Year 1
- Recruitment via self-referral again and GP referral
- Recruit 2-3 personal trainers
- Publish research on our findings

Estimated cost = £60,000

Looking for a coalition of investors from local businesses to help support this project via CSR.

- Phase 2

- Evaluate Phase 1 and develop new solutions to upscale the project will be reviewed within ECCH and our PT partners.



# Why be our partner?

- Embracing CSR enhances customer retention, employee engagement, brand imaging and potentially profit margins
- Helping support local communities in improving overall health and wellbeing
- Supporting those with long term health conditions stay and get back in the workplace
- Contributing to social mobility and addressing health inequalities

